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ABSTRACT

This report provides a general overview of the Instrument for the Observation of Teaching Activities (IOTA) program for assessing and improving teacher competence. IOTA is an analytic, objective, and specific means of assessing teaching activities. The normal three-step progression of groups through the introductory and training stages of the program into the implementation stage is described, followed by a flow chart that graphically illustrates the relationships between various facets of the IOTA program. Six major areas of teacher responsibility are identified, and their use as criteria for assessing teaching competence is discussed. Examples of IOTA materials are included, along with a list of selected school districts involved in implementation of the IOTA program. (JG)

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IOTA

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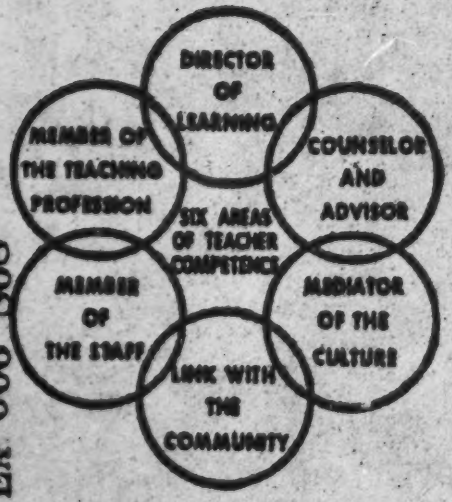
ASSESSMENT OF TEACHING COMPETENCE FOR IMPROVEMENT OF INSTRUCTION


DIRECTOR OF LEARNING
COUNSELOR AND ADVISOR
MEDIATOR OF THE CULTURE
LINK WITH THE COMMUNITY
MEMBER OF THE STAFF
MEMBER OF THE TEACHING PROFESSION
SIX AREAS OF TEACHER COMPETENCE

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We welcome your interest in the IOTA approach to the improvement of instruction. The prime motive of our program is helping teachers to outline specific student expectancies, developing teaching and student behaviors to parallel the objectives, measuring student and teaching behavior and adjusting the teaching program accordingly. Our program attempts to draw the educational community together in a co-operative effort to improve the educational climate for the children.

To effect change in the habits of teachers and administrators toward improvement demands strong leadership and committment from within the educational organization and possibly a catalyst from outside. We try to provide guidance and serve as a catalyst to stimulate improvement.

If we can assist you further, beyond the information contained herein, please contact us.

Sincerely,

James O. Carpenter, Ph.D.
Coordinator
National IOTA Program

1972

PREFACE

As with any encompassing program it is most difficult to clearly convey in writing the true nature of such a comprehensive endeavor. This material has been developed to provide interested persons with as comprehensive an understanding of the IOTA program as is possible within certain space and practical limitations.

Initially one becomes aware of the existence of the IOTA program by word of mouth, through a conference presentation by IOTA personnel, or through discovery in educational literature. Following such contact, initial literature is obtained from the IOTA program or other means. If personal interest continues additional detailed materials are mailed to interested persons upon their request.

Following study and consideration of this material individuals or organizations interested in pursuing further the IOTA possibilities often send a small number of participants to a nearby workshop. Only by participating in an IOTA workshop can one develop an understanding of and appreciation for the IOTA process and program. If such action is not possible the contact can be made with the National Coordinator of the IOTA program, or with districts using the IOTA program or by sending an observer to an IOTA Orientation Program. (1-7 hours.)

Once the IOTA program has been completely researched by the local organization, if the IOTA program has been judged worthy of further consideration, the local group might sponsor a pilot workshop. (Such a workshop--36 hours--could be co-sponsored by two or more nearby districts.) If a workshop is not immediately possible, a rather comprehensive understanding of the IOTA program can be developed through arranging for a one day explanatory orientation program. These two possibilities are discussed in the attached materials.

Additional information, available dates, and cost estimates can be obtained by contacting: Dr. James O. Carpenter, Coordinator, National IOTA Programs:

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THE I O T A PROGRAM

INTRODUCTION

While having been called both a "clincial approach to instructional improvement" and a "professional approach to accountability," the IOTA Program has as its sole objective the improvement of teaching competencies and improved learning. IOTA is an acronym for the "Instrument for the Observation of Teaching Activities." The Instrument is analytical, objective, and specific in assessing teaching activities.

To conceptualize the IOTA Program it is divided into three stages. These stages are: (1) introducing the Program (orientation), (2) training (workshop), and (3) operational phase (implementation).

STAGES OF THE IOTA PROGRAM

Stage One - Introductory

In order to introduce groups of people to the IOTA Program, Stage One is an "introductory" segment. In this stage an assemblage of individuals (a staff of a building, a cadre of interested individuals, an administrative council, an executive committee of a teachers association, etc.) participates in a micro-version of a regular IOTA workshop. Through a graphic presentation, using large and small group instructional techniques, the IOTA story is explained.

Depending upon the desired inclusiveness, this orientation to IOTA will run from three to seven hours. Again dependent upon the completeness of the orientation desired and upon the numbers in the group participating in the activities, the Stage One segment will require the services of from two to ten or more trained IOTA Consultants.

Another approach for introducing a staff to IOTA is conducting a pilot workshop where a cross section of teachers and administrators are introduced to a more comprehensive view of IOTA. In a large school district maybe one teacher and one administrator from each building are invited to attend.

Through the medium of Stage One, the participant will learn not only of Stage Two and Three, but he will also discover that IOTA involves:

1. A national criterion of teaching competence. (THE ROLE OF THE TEACHER IN SOCIETY).
2. A local interpretation of the criterion of teaching competence.
3. A training program, both film and live, to develop abilities to observe and record data related to classroom activities.
4. Practice in the use of interview techniques.
5. Development of the ability to apply collected data to the Instrument for the Observation of Teaching Activities for the purpose of the assessment of teaching competence.
6. Development of the ability to use the IOTA for self-assessment.
7. Development of staff-administrator teamwork procedures for the improvement of instruction.

In adopting the IOTA Program an organization should consider the many attributes and potentials that the program offers; obtain a consensus commitment from staff, administrators, and board for the program; develop specific short and long term goals to insure maximum outcomes from the program.

Stage Two - Training

Organizations interested in pursuing the IOTA Program, a decision usually arrived at after someone's participation in Stage One, then become involved in the second part of the IOTA Program. Stage Two involves the participation of a number of individuals of an organization in an intensive training program. This stage is commonly known as the IOTA WORKSHOP. This workshop of approximately 36 contact hours* conducted by an IOTA Director and Consultants, includes activities that require the participant to become familiar with the principal factors of the IOTA Program. These factors deal with developing an understanding of an

*Workshops are scheduled over a four or five day period including weekends, if desired. The IOTA Program is individually prescribed for each organization; hence, the utmost flexibility in all phases of the program are possible and encouraged.

acceptable definition of teaching competence, developing objective observation skills through film training and actual classroom observations, developing skills in data recording and in making accurate application of the Instrument for the Observation of Teaching Activities. In addition, workshops involve objectivity training, role playing, interview training, vidio tape self-analysis, library study, teacher-observer conferences, objective writing, etc. IOTA workshops are designed for "doing" - not for "listening".

Also included in Phase Two is participation in activities that require individuals to consider how the IOTA procedures can be used by themselves, and later by their organization.

Stage Three - Implementation

Perhaps the most vital segment of the IOTA Program is that part dealing with an organization's utilization of IOTA. The implementation phase is undertaken after an organization has benefitted from a sufficient number of workshops so that it has been able to make a committment, both in time and funds, to employ IOTA across the organization or in large parts of it. Up to this point professional growth has been obtained mostly on the part of individuals who have attended workshops.

Through the implementation phase of the IOTA Program, highly trained personnel from the National IOTA Program work with the organization in developing an individualized application of IOTA to the needs of the organization. Acting as a catalytic agent the IOTA staff helps the organization plan how it can obtain the most benefit from IOTA. Procedures for utilization of the program are developed cooperatively, additional training of the organization's staff is given guidelines are established for implementing IOTA, and an operational program benefitting all in the organization is formulated.

At all times trained IOTA Program staff personnel are available, by phone

or in person, for consultation. Professional growth programs are too important to be undertaken and then left to falter without the proper long term assistance. Stage Three of the IOTA Program offers continuing assistance as needed by the participating organization using IOTA.

THE IOTA PROGRAM SCHEMATA

Figure I on the next page presents a graphic view of the various facets of the IOTA Program. Here in "flow chart" style are the various stages of the IOTA Program laid out for detailed analysis. IOTA is a "Planned Program of Instructional Improvement."

One sees from looking at the Introductory Stage that the aims of this stage of the program can be accomplished through either a special orientation program or a regular workshop which would serve as a pilot. The orientation activity would be for the teaching staff and administrative personnel ranging from a broad segment to all personnel.

The Training Stage involves one or more workshops in order to develop that which is so badly needed in assessment and developmental programs - trained local staff. These workshops are planned to fit the requirements of the long term goals of the organization and are tailored as a result of previous IOTA activities. Each workshop is individually structured to fit the needs of the sponsoring organization. When an organization is contemplating the use of the IOTA procedures unit or system wide, it is advisable to sponsor an "orientation" program for the total staff of the unit or system. This will be the explanatory bridge to all those involved or to be involved.

The Implementation Stage of the IOTA Program can be either formal or informal as far as the local organization is concerned. In the former the trained individuals are expected to utilize the IOTA processes on their own initiative. In a formal style the trained personnel of the organization establish simple

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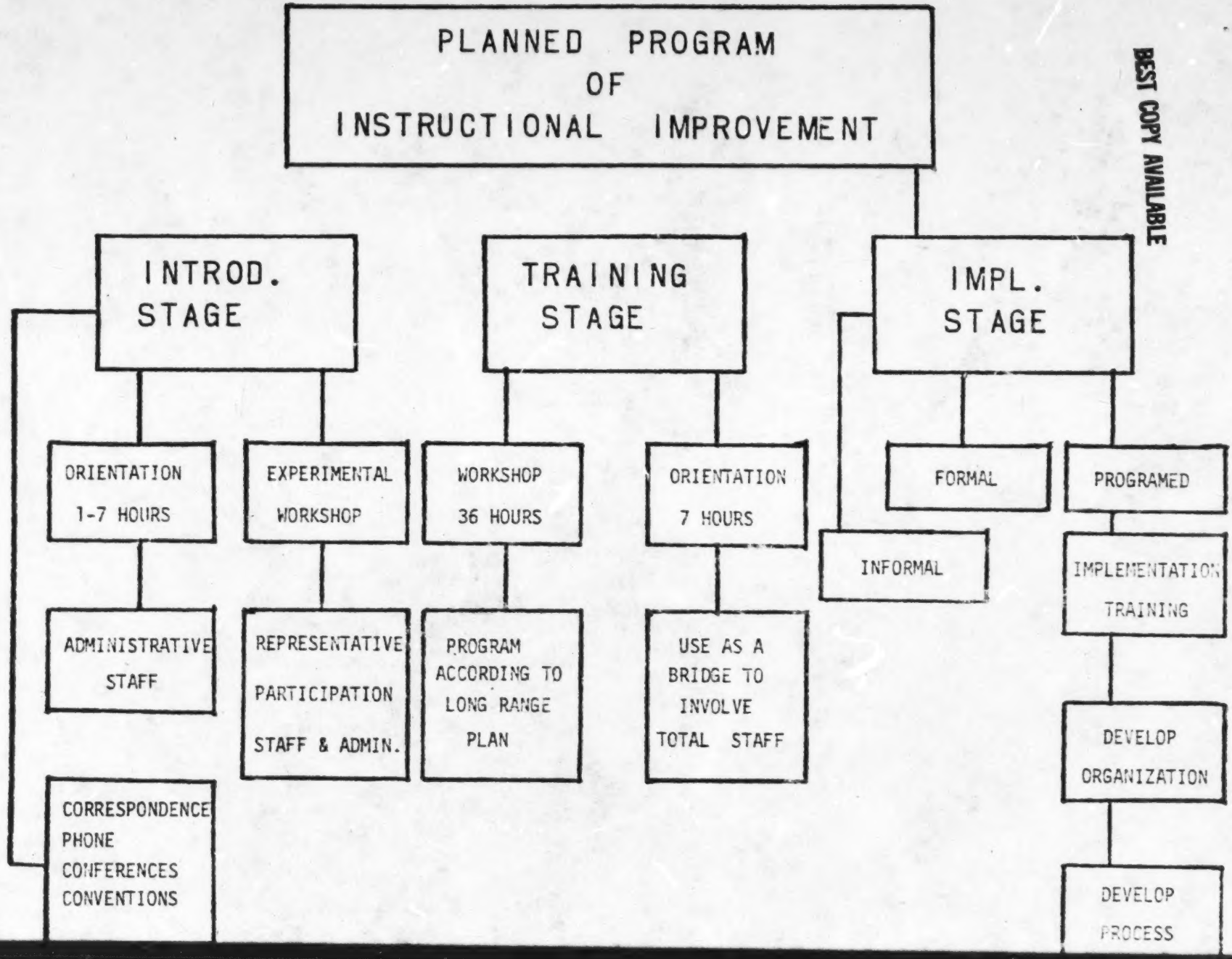

plans on how to utilize the IOTA techniques. Where the local organization can possibly accomplish it, the programed approach to implementation is recommended. In this facet the services of the IOTA Program personnel are engaged in assisting the local organization in providing advanced observation and interview training, as well as training in developing the local teacher and administrative leadership to implement a planned instructional improvement program, and in refining the local process.

THE CRITERION

It is axiomatic that before something can be assessed it needs to be defined. Hence, before the teaching activities can be analyzed they must be defined. The IOTA is based upon a commonly and broadly accepted definition of teaching. This definition is THE ROLE OF THE TEACHER IN SOCIETY. This definition identifies six major areas of responsibility of the professional teacher. The specific statements embodying the definition have drawn upon the prior descriptive materials known as the "California definition." The definition delineates six areas of competence in teaching. One of the unique aspects of this definition is its use of behavioral terminology in describing teaching performance.

THE ROLE OF THE TEACHER IN SOCIETY defines the professional task of the teacher in our democratic society and as such becomes an acceptable basis for the development of evaluative instruments and procedures to assess the competence of teachers. It identifies six major areas of responsibility of the professional teacher; (1) Director of Learning, (2) Counselor and Advisor, (3) Mediator of the Culture, (4) Link with the Community, (5) Member of the Staff, and (6) Member of the Teaching Profession. These areas are subdivided into approximately 100 behavioral activities representing the total task of the teacher in a dynamic society.

The definition covers not only the teacher's performance in the classroom but includes also activities and responsibilities outside the classroom which are a part of his total professional task. The definition has been widely used in a number of states. It gives promise of becoming even more widely used as a criterion of teaching competence.

THE INSTRUMENT FOR THE OBSERVATION OF TEACHING ACTIVITIES

THE INSTRUMENT FOR THE OBSERVATION OF TEACHING ACTIVITIES was developed by the National IOTA Council. It is based upon the criterion THE ROLE OF THE TEACHER IN SOCIETY. The 100 behavioral activities of the criterion have been reflected by 27 items known as "scales." There are two types of "scales", an observation and interview.

The two types of scales, observation and interview, are titled by these terms because of the major sources of information with respect to each. That is, data obtained for the observation scales are secured through observation of the teaching situation in the classroom.

There are 14 observation scales which are based upon the role of the teacher as it relates to Area 1, Director of Learning; Area 2, Counselor and Advisor; Area 3, Mediator of the Culture; Area 4, Link with the Community and Area 6, Member of the Teaching Profession.

There are 13 interview scales and the data for these scales are secured through the structured interview. Interview scales are based upon the role of the teacher as it relates to Area 2, Counselor and Advisor; Area 3, Mediator of the Culture; Area 4, Link with the Community; Area 5, Member of the Staff; Area 6, Member of the Teaching Profession.

The title of each scale making up the instrument represents a factor essential in teaching and learning which is either observable in the classroom or is

obtainable by interview with the teacher or principal. These were derived from the definition of teaching, THE ROLE OF THE TEACHER IN SOCIETY.

Each scale is divided into five behavioral levels, or levels of competence, relating to that scale. The levels are intended to spread from the highest, or most sought after level of competence, to the lowest acceptable level. If these levels may be though of as levels five and one respectively, it is apparent that there exist other levels of teaching competence between these two extremes. Level three would represent a point midway between the two extremes and describes the competence level of standard performance.

Level five represents the optimum reflection of the definition with regard to the particular scale. It assumes professional competence in the classroom equivalent to expertness in performance. It would find all factors, environmental and professional, operating at a maximum level of performance. When placed under each scale heading in the instrument, the levels are scrambled to enhance objectivity on the part of the trained observer in using the instrument.

Data resulting from classroom observation and the interview provide the basis for the trained observer and interviewer to assess the teaching competence - of strength and weakness - and this identifies the factors where improvement of instruction can be accomplished.

The IOTA is strongly weighted toward self-improvement and thus the activities might actually be self-motivated by the teacher since the IOTA instrument is one which encourages self-evaluation by the teacher. The primary purpose of the instrument is to guide the observer in collecting specific, objective information on which a valid and reliable assessment may be based. This requirement calls for observation directed by specific, unambiguous statements in order that the evaluation may meet the statistical requirements for consistency, discriminative ability, and other features expected in measurement.

The second purpose served by IOTA is to provide for the assessment of what has been observed.

The IOTA has proven its reliability through tested practice by trained observers. The inter-rater correlation of observations by multiple trained observers (working independently) is around .87%

SUMMARY

The IOTA Program has all of the ingredients necessary to provide an organization with an effective method of improving instruction. Starting with a definition and working through a highly developed instrumentation, providing a means and method of training personnel in its use, and being available and able to provide local assistance through implementation procedures, the IOTA program is the ideal method of achieving instruction improvement through a positive professional staff development approach which is acceptable to both teachers and administrators.

EXHIBIT A

THE I INSTRUMENT FOR THE
O OBSERVATION
T TEACHING
A ACTIVITIES

1. DEFINES TEACHER COMPETENCE THROUGH THE ROLE OF THE TEACHER IN SOCIETY. (SIX AREAS OF TEACHER COMPETENCE).

2. PROVIDES A COMMON SET OF CRITERIA FOR 27 TEACHING ACTS, EACH WITH FIVE LEVELS OF TEACHER COMPETENCE IN BEHAVIORIAL TERMS.

3. PROVIDES A COMMON FRAME OF REFERENCE FOR USE IN FACILITATING MEANINGFUL COMMUNICATION REGARDING TEACHING COMPETENCE.

4. PROVIDES A BASIS FOR DISCUSSION WITH TEACHERS CONCERNING THE PHILOSOPHICAL AND OPERATIONAL OBJECTIVES OF TEACHING.

5. FOCUSES ON

   OBJECTIVITY, NOT SUBJECTIVITY,
   ANALYSIS, NOT COMPARISON,
   SPECIFICITY, NOT GENERALIZATION.

6. POSTULATES THAT

   IMPROVEMENT OF TEACHING COMPETENCE IS POSSIBLE,
   IMPROVEMENT OF TEACHING COMPETENCE IS ESSENTIAL,
   TEACHERS DESIRE TO SEEK IMPROVEMENT OF TEACHING COMPETENCE.

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EXHIBIT B

DIRECTOR OF LEARNING
MEMBER OF THE TEACHING PROFESSION
COUNSELOR AND ADVISOR
SIX AREAS OF TEACHER COMPETENCE
MEMBER OF THE STAFF
MEDIATOR OF THE CULTURE
LINK WITH THE COMMUNITY

THE ROLE OF THE TEACHER IN SOCIETY

AREA 1: DIRECTOR OF LEARNING

1.1 Adapts principles of growth and development to planning of learning activities.

1.11 Recognizes and deals with each student according to his needs, aptitudes, talents and learning style.

1.12 Works closely with specialists, parents, and community agencies in the solution of physical and mental health problems.

1.13 Helps individuals acquire the skills of effective group membership.

1.14 Develops and uses student data in ascertaining needs, planning work and guiding the learning process.

1.2 Plans teaching-learning situations in accord with acceptable principles of learning.

EXHIBIT C

IOTA INSTRUMENT SCALE TITLES

OBSERVATION SCALES

1. Learning Centers
2. Variety in Activities
3. Use of Materials for Instruction
4. Classroom Control
5. Learning Difficulties
6. Individualization of Instruction
7. Development and Implementation of Classroom Goals
8. Opportunity for Participation
9. Teacher Reaction to Student Response
10. Creative Expression
11. Development of Student Initiative
12. Social Climate
13. Subject Matter Preparation
14. Current Application of Subject Matter

INTERVIEW SCALES

15. Peer Relationships
16. Participation in School Staff Activities
17. Articulation of Classroom Program to Total School Curriculum
18. Parent Participation in School Activities
19. Utilization of Community Resources
20. Personal Professional Responsibility
21. Professional Self-Evaluation
22. Teacher in the Community
23. Skill in Enhancing Multi-Cultural Relationships
24. Evaluation of Individual Student Progress by the Teacher
25. Development of Student Self-Assessment
26. Work with Specialized Services
27. Assists Students in Exploring Vocational Opportunities

EXHIBIT D

SELECTED SCHOOL DISTRICTS
IMPLEMENTING I O T A

Dr. James T. Perry
Assistant Superintendent
Chandler District #80
500 W. Galveston Street
Chandler, Arizona 85224

Mr. Don Lawhead
Guidance Counselor
Career Education Project
Sierra Vista Junior High School
Sierra Vista, Arizona 85635

Mr. Larry Slavin
Teacher Coordinator
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Ms. Betty McCarty
Director of Urban/Rural
School Community Project
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Principal
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Director of Instruction
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Mr. Gerald Bryant
Director of Elementary Education
Grand Island Public Schools
615 N. Elm
Grand Island, Nebraska 68801

Mr. William Schwarz
Chairman, BRIC Committee
Principal, Bell Top School
East Greenbush Public Schools
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Dr. Dan Sullivan
Assistant Superintendent
for Personnel
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Dr. Floyd C. Moritz
Superintendent
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